Crowsnest Corridor

Local Integrated Resource Plan

CROWSNEST CORRIDOR
LOCAL
INTEGRATED RESOURCE PLAN

Approved by the Minister
of Alberta Forestry, Lands and Wildlife
on April 4, 1991

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PREFACE

This planning document was prepared by government agencies and public consultants in recognition of the need for improved management of Alberta's lands and resources. It applies only to public lands within the Crowsnest Corridor planning area, not to private, or federal lands.

The plan presents the Government of Alberta's resource management policy for public lands and resources within the area. It is intended to be a guide for resource managers, industry and the public with responsibility or interests in the area, rather than a regulatory mechanism. Resource potentials and opportunities for development are identified with a view to assisting in the economic progress of Alberta. The plan is sufficiently flexible so that all future proposals for land use and development may be considered. No legitimate proposals will be categorically rejected. Energy resource decisions are subject to the application of regulatory approval processes under the jurisdiction of the Minister of Energy. This plan may influence regulatory decisions, but will not result in the categorical approval or rejection of energy proposals.

The provincial government is committed to serving Albertans; should a proposal not be in keeping with the provisions of the plan, staff will work with the proponent to explore alternative means for accommodating the proposal in a more appropriate location, either in this planning area or on other public lands. The rejection of any proposal will be done only in writing by the Minister of Forestry, Lands and Wildlife or his designate.

A detailed outline for implementation will be provided for this local plan in order to identify the necessary implementation actions and roles. This implementation outline will also provide for the periodic review of the plan so that it may accommodate changing needs and situations. Wherever possible, the private sector will be provided with the opportunity to be actively involved in the operational delivery of the plan.

Implementation is subject to the normal budgetary approval process. In establishing overall priorities, opportunities in other planning areas and areas currently outside the planning process will be considered.

While the plan identifies resource potentials and opportunities, the realization of these may require the dedication of major amounts of public funds. The plan will be used on the understanding that any actions required for implementation will only be undertaken as budgetary approvals are given in the normal way. The private sector will be given the first opportunity to provide any development required.

This plan has no legal status and is subject to revisions or review at the discretion of the Minister of Forestry, Lands and Wildlife.

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1.0 INTRODUCTION

1.1 Purpose

The purpose of the Crowsnest Corridor Local Integrated Resource Plan is:

> "To identify a comprehensive, coordinated approach to the management of public land and public resources that optimizes resource decisions in the public interest and provides social and economic benefits to Albertans, especially residents of the Municipality of Crowsnest Pass, while at the same time protecting the natural environment."

1.2 Planning Background

The Crowsnest Corridor Local Integrated Resource Plan was required by the Livingstone-Porcupine Hills Sub-Regional Integrated Resource Plan. The latter did not deal with the Crowsnest Corridor but identified it as an area for special consideration. The area immediately surrounding the Crowsnest Corridor (Resource Management Area [RMA] "G" in the Livingstone-Porcupine Hills Sub-Regional Integrated Resource Plan) has the objective:

> "To provide a full range of multiple use activities managed to maintain high watershed quality, and to recognize the social and economic needs of the Crowsnest Pass."

The resource management guideline for RMA G states:

> "A local integrated resource plan will be prepared for public lands and resources within the Municipality of Crowsnest Pass. The plan will be prepared in consultation with the municipality, interested industrial and commercial users and the general public."

Figure 1 identifies the Crowsnest Corridor planning area as shown in the Livingstone-Porcupine Hills plan.

The 12-member planning team for the Crowsnest Corridor Local Integrated Resource Plan consisted of a coordinator from the Resource Planning Branch of Alberta Forestry, Lands and Wildlife and one representative each from the Fish and Wildlife Division, the Alberta Forest Service and the Public Lands Division. A representative from each of the departments of Culture and Multiculturalism, Energy, Tourism, Transportation and Utilities, and from the Energy Resources Conservation Board participated. Municipal interests were represented by a council member from the Municipality of Crowsnest Pass, a staff person from the Oldman River Regional Planning Commission and a staff member from Improvement District #6. These are the agencies with an interest in the public land allocation, management and resource decisions.

Alberta Environment and Alberta Recreation and Parks provided advice and input as needed.

1.3 Planning Area

The Crowsnest Corridor planning area covers approximately 175 km^2 (67.6 sq. mi.); about 45 percent (78.75 km^2/30.4 sq. mi.) of which is public land. The planning area boundary is defined by the municipal limits of the Municipality of Crowsnest Pass. The municipality was created in 1979 with the amalgamation of four incorporated urban areas, as well as portions of what was known then as Improvement District #5.

The Crowsnest Corridor is dominated by the valley of the Crowsnest River, which cuts across the parallel folds and thrust faults of the Rocky Mountains. The shape of the valley has been modified by glaciation, resulting in a relatively broad, flat valley bottom confined on either side by steep mountain slopes. Surficial deposits within the corridor are the products of glacial, colluvial and river activity.

The area is characterized by a climate with warm, dry summers and cool, dry winters modified by frequent chinooks. This has resulted in vegetation typical of both the Montane (i.e., Douglas fir, white spruce and lodgepole pine with grasslands) and the Subalpine ecoregions (i.e., stands of Engelmann spruce, alpine fir). The distribution of these vegetation types in the corridor is a function of

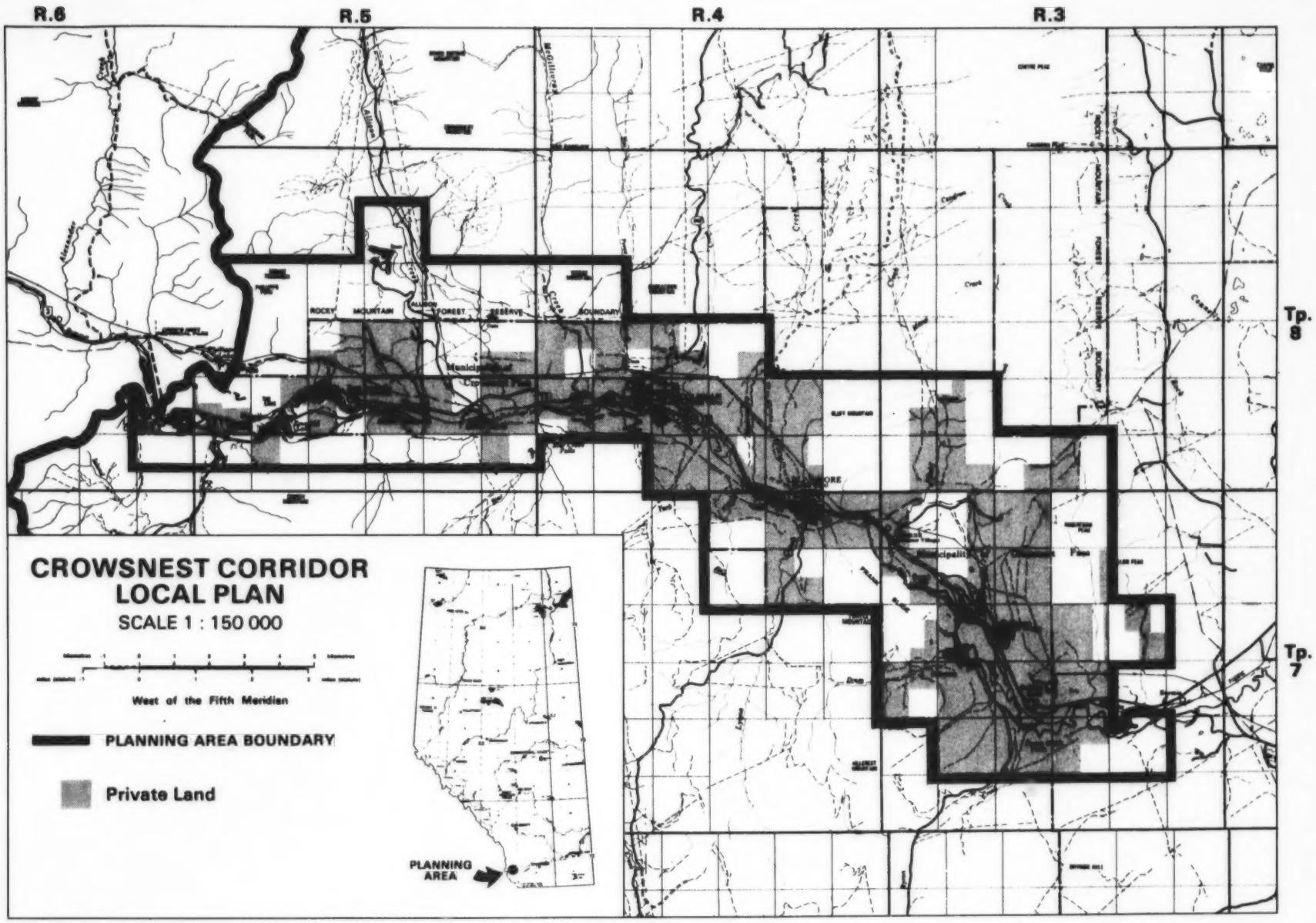

Figure 1. CROWSNEST CORRIDOR PLANNING AREA

elevation, aspect, soils, and human and fire history.

1.4 Policy Direction for the Planning Area

Resource management activities in the Crowsnest Corridor planning area are guided by many government directives, legislation, policies and regulations. These directives provide the context for the development of this plan. Policies and directives especially relevant to this planning area are the following:

Eastern Slopes Policy

A Policy for Resource Management of the Eastern Slopes, Revised 1984 (Eastern Slopes Policy) provides direction for resource management and planning for the entire Eastern Slopes region. The policy component identifies provincial government intentions for the region including priorities and opportunities for resource management. Watershed management and the provision of recreation and tourism benefits are high priorities. Other priorities include the maintenance of the unique character of the Eastern Slopes and resource management that is consistent with principles of conservation and environmental protection. The process through which the government identifies the priorities and opportunities is integrated resource planning, which includes public involvement as an essential element.

The regional plan for the Eastern Slopes provides direction in the form of regional resource management objectives, land use zoning and resource management guidelines. Objectives are provided for 10 resource sectors, while eight regional land use zones are used to designate areas for varying degrees of protection, resource management and development. The general intents for the zones are presented in Table 1. The regional plan also contains the Table of Compatible Activities, which categorizes representative resource use activities according to their compatibility with the intent for each land use zone. The Crowsnest Corridor Local Integrated Resource Plan provides more specific resource management direction than the Eastern Slopes Policy, and the zoning in this local plan takes precedence over the regional zoning.

Coal Policy

A Coal Development Policy for Alberta (Coal Policy) released in 1976, guides the exploration and development of coal resources throughout the province. Under the Coal Policy, exploration and development of coal deposits are permitted only under strict control to ensure environmental protection and satisfactory reclamation of any disturbed land. It includes a land classification system that takes into consideration the environmental sensitivity, alternate land uses, potential coal resources and infrastructure. Approximately 72 percent of the planning area has been classified as Category 1 (no exploration or development), less than 2 percent as Category 2, with the remainder of approximately 26 per cent of the planning area classified as Category 4 where exploration and development are permitted. The latter land is located north and south of Coleman, Blairmore and Frank.

The Coal Policy also provides a broad procedural framework for considering applications for new coal developments. This is a four-step process:

1. Preliminary disclosure to government and the government's initial response.

2. Disclosure by the applicant to the public.

3. Consideration, through a public hearing if appropriate, of the technical application, the cost-benefit and social impact analyses, an environmental impact assessment and a land surface reclamation plan.

4. Final decision by the government in light of the findings of the Energy Resources Conservation Board, Alberta Environment and other concerned departments.

Fish and Wildlife Policy for Alberta

The Fish and Wildlife Policy for Alberta was approved by the Alberta Cabinet in October 1982 and contains a fish and wildlife outdoor recreation policy, a wildlife policy, a fisheries policy and a regulatory policy component. Fish and wildlife management objectives for the Crowsnest Corridor planning area are consistent with provincial objectives as stated in the provincial policy.

Table 1. General intents for the zones in the Eastern Slopes Policy.

#	Zone	INTENT FOR THE ZONE
1	Prime Protection	To preserve environmentally sensitive terrain and valuable ecological and aesthetic resources.
2	Critical Wildlife	To protect the ranges or terrestrial and aquatic habitats that are crucial to the maintenance of specific fish and wildlife populations.
3	Special Use	To recognize historic resources, lands set aside for scientific research and any lands which are required to meet unique management requirements, or legislative status, which cannot be accommodated within any of the other zones.
4	General Recreation	To retain a variety of natural environments within which a wide range of outdoor recreation opportunities may be provided.
5	Multiple Use	To provide for the management and development of the full range of available resources, while meeting the objectives for watershed management and environmental protection in the long term.
6	Agriculture	To recognize those lands within the Eastern Slopes which are presently utilized or are considered suitable for cultivation and/or improved grazing.
7	Industrial	To recognize existing or approved industrial operations, such as coal mines, gas processing plants, cement plants and large permanent forest product mills.
8	Facility	To recognize existing or potential settlement and commercial development areas. The zone must be able to accommodate future growth and additional areas will be zoned as required.

Tourism Policy

The Position and Policy Statement on Tourism (June 1985), states that "it is the government's role to encourage a climate in which tourism can prosper and grow." Identified elements relative to this encouragement, and which may affect public land planning, include the following: assisting other levels of government, such as municipalities, to develop and to smooth the way for further development of related recreational and tourist opportunities; minimizing regulations affecting tourism services; and providing adequate protection for significant natural and cultural resources.

Green Area-White Area

The forest reserve has existed under various federal and provincial Acts since 1906. It was included in the provincial Green Area created by statute in 1948 and accounts for roughly 15 percent of the planning area. This includes public land that is not available for settlement or agricultural development other than domestic livestock grazing. The remaining 85 percent of the planning area is located in the White Area where suitable public land may be made available for settlement or agricultural development.

Plans Under the Planning Act

The Planning Act provides for the planning and regulation of land uses and of the pattern of settlement in Alberta. Most private development, whether on freehold or public land, falls under the jurisdiction of the Act and any statutory plans adopted pursuant to it. Because the Oldman River Regional Plan and the Municipality of Crowsnest Pass General Municipal Plan were formally adopted under the Planning Act, they are legal documents. The General Municipal Plan consists of 11 sections, each with a review of considerations followed by a set of objectives and policies. The policies are, in effect, a commitment to achieve the chosen objectives. The plan is intentionally general in nature and provides a framework for decision-makers.

Another key document prepared under the Act is the municipal land-use bylaw. This bylaw establishes land use districts and regulates development on all lands not under Crown jurisdiction. Although the Crown is not bound by the Planning Act, coordination between provincial resource plans and statutory plans is essential to ensure that both planning systems are consistent and mutually supportive.

Zoning within the terms of the Crowsnest Corridor Local Integrated Resource Plan refers only to public land zoning and **not** to districting (or zoning) under the land use bylaw.

1.5 Plan Preparation

A map of public land and existing dispositions, as well as an integrated resource inventory (Brierley and O'Leary 1990), was prepared for public land within the Crowsnest Corridor. Detailed sites were established throughout the area to inventory and evaluate the soils, vegetation and landform features. Existing background information included maps of mineral leases and abandoned mines, the general municipal plan (ORRPC 1986), the tourism marketing plan (Pannell, Kerr, Forster 1988), a fisheries access study (REAP 1988) and a Highway 3 location study (Department of Highways and Transport 1974).

Team members and government consultative representatives contributed broad objectives for the overall planning area, as well as detailed resource information, management objectives, guidelines and implications. The basis for formulation of these detailed objectives and guidelines were the broader objectives, as well as agency mandates. The objectives and guidelines for each resource area identify the management approach best suited to management of that resource while minimizing negative impacts on other resource uses or management.

2.0 RESOURCE MANAGEMENT STRATEGY

The resource management strategy for the Crowsnest Corridor planning area consists of a discussion, a set of objectives, guidelines, and Eastern Slopes Policy zoning.

An objective describes a desirable condition or state, for a resource or resource use, that can be achieved through management action. A guideline describes a management action or a condition on resource use that contributes to the achievement of objectives.

The Crowsnest Corridor plan uses the zoning categories and the Table of Compatible Activities from the Eastern Slopes Policy (Table 2) to provide resource management direction. The table shown here has not been changed from the 1984 Revised Eastern Slopes Policy, except that coal exploration and development have been separated. The planning team interpreted the general intents for the Eastern Slopes Policy zones (Table 3) and modified the zoning boundaries in the planning area accordingly.

The zoning of public land in the Eastern Slopes surrounding the Crowsnest Corridor planning area was refined in the Livingstone-Porcupine Hills Sub-Regional Integrated Resource Plan, such that these lands are zoned almost entirely as Multiple Use (Zone 5). After considering the zoning adjacent to the planning area and the eight possible zone types, the planning team zoned the planning area as shown in Figure 2. Prime Protection (Zone 1) was applied to lands above the 1981 m (6500 ft.) contour and consideration of steep slopes and aesthetics. Critical Wildlife (Zone 2) was applied to areas of critical habitat for sheep, elk and mule deer. Special Use (Zone 3) was applied to major historic sites, restricted development areas and designated Natural Areas to recognize the legislative status of these lands. Recreation (Zone 4) was applied to small areas of public land within the immediate vicinity of the Crowsnest River. Multiple Use (Zone 5) to provide for a variety of natural resources--water, timber, gas, coal, scenic areas, forage, fish and wildlife--was applied to most of the public land on the north and south boundaries of the planning area to provide for a range of resource management and use. Settlement (Zone 8) was applied to easily accessible public land that may be required for future urban purposes. Only zoning on public land is shown because zoning does not apply to privately owned land.

Consultation in all matters that affect the management of public land or public resources is a principle agreed upon by all participating government departments and agencies. Only when consultation is critical to achieving an objective or sensitive to timing in the development or approval process is it specifically referenced within a resource sector.

The following set of objectives and guidelines are organized alphabetically by resource sector, and no priority is intended or implied by the sequence.

2.1 Access

Discussion

The planning area is a vital transportation corridor through Alberta's Rocky Mountains. In addition to the Crowsnest Highway (Highway 3), the corridor contains numerous pipelines and transmission lines, as well as the Canadian Pacific Railway that links the prairie provinces with west coast ports. The Forestry Trunk Road (Highway 40), provides important access for resource use and recreation. Highway 3 is the southern terminus of this road. Several access points to the forested areas north and south of the planning area are found throughout the Crowsnest Corridor.

Access to urban centres, the rural area, and recreational and tourism attractions in the Crowsnest Corridor is important to support existing developments and encourage future developments.

Access identified in the Crowsnest Corridor must be integrated with the Livingstone-Porcupine Hills Sub-Regional Integrated Resource Plan.

Objectives

1. To efficiently provide a safe, effective, transportation system integrated with the local road system for the movement of

TABLE 2. COMPATIBLE ACTIVITIES BY LAND USE ZONE [1]

ACTIVITY	ZONE 1 PRIME PROTECTION	2 CRITICAL WILDLIFE	3 SPECIAL USE	4 GENERAL RECREATION	5 MULTIPLE USE	6 AGRICULTURE	7 INDUSTRIAL	8 FACILITY
Non-motorized recreation	■	■	□	■	■			■
Fishing	■	■	□	■	■			■
Hunting	■	■	□	□	■			×
Scientific study	■	□	□	□	■			■
Trapping	■	□	□	□	■			×
Trails; non-motorized	□	□	□	■	■			■
Transportation and utility corridors	□	□	□	□	■			■
Primitive camping	□	□	□	■	■			×
Intensive recreation	□	×	□	■	■			■
Off-highway vehicle activity	×	□	□	□	■			■
Logging	×	□	□	□	■			□
Domestic grazing	×	□	□	□	■			□
Petroleum and natural gas exploration and development	×	□	□	□	■			□
Coal exploration	×	□	□	□	■			×
Coal development	×	□	□	□	■			×
Mineral exploration and development	×	□	□	□	■			×
Serviced camping	×	□	□	■	■			■
Commercial development	×	×	□	□	□			■
Industrial development	×	×	□	×	■			□
Residential subdivisions	×	×	□	□	□			■
Cultivation	×	×	□	×	□			□

■ Compatible Use -Uses that are considered to be compatible with the intent of a land use zone under normal guidelines and land use regulations.

□ Permitted Use -Uses that may be compatible with the intent of a land use zone under certain circumstances and under special conditions and controls where necessary.

× Not-Permitted Use -Uses that are not considered to be compatible with the intent or capabilities of a land use zone.

These activities are only representative of the range of activities that occur in the Eastern Slopes. For these and any other activities, the possibility of whether they should or should not take place in a particular area must always be measured against the fundamental management intentions for that zone. Since economic opportunities are not all known in advance, site-specific developments may be considered in any zone.

[1] From "A Policy for Resource Management for the Eastern Slopes-Revised 1984"

Not applicable in the Crowsnest Corridor Planning Area

Table 3. Planning team interpretation of the intents for the Eastern Slopes Policy Zones.

#	Zone	INTENT FOR THE ZONE
1	Prime Protection	To preserve environmentally sensitive terrain and valuable aesthetic resources.
2	Critical Wildlife	To protect specific fish and wildlife populations by protecting aquatic and terrestrial habitat crucial to the maintenance of those populations.
3	Special Use	To recognize historical resources, scientific research areas and lands that have unique management requirements or legislative status, or which cannot be accommodated elsewhere.
4	General Recreation	To retain a variety of natural environments to serve as a focus for a wide range of outdoor recreational activities.
5	Multiple Use	To provide for the management and development of the full range of available resources, while meeting long-term objectives for watershed management and environmental protection.
*6	Agriculture	To designate lands that are currently used or are considered suitable for cultivation or improved grazing.
*7	Industrial	To recognize existing or approved industrial operations.
8	Facility	To recognize existing or approved settlement and commercial development areas.

* Not applied in the Crowsnest Corridor Local Integrated Resource Plan.

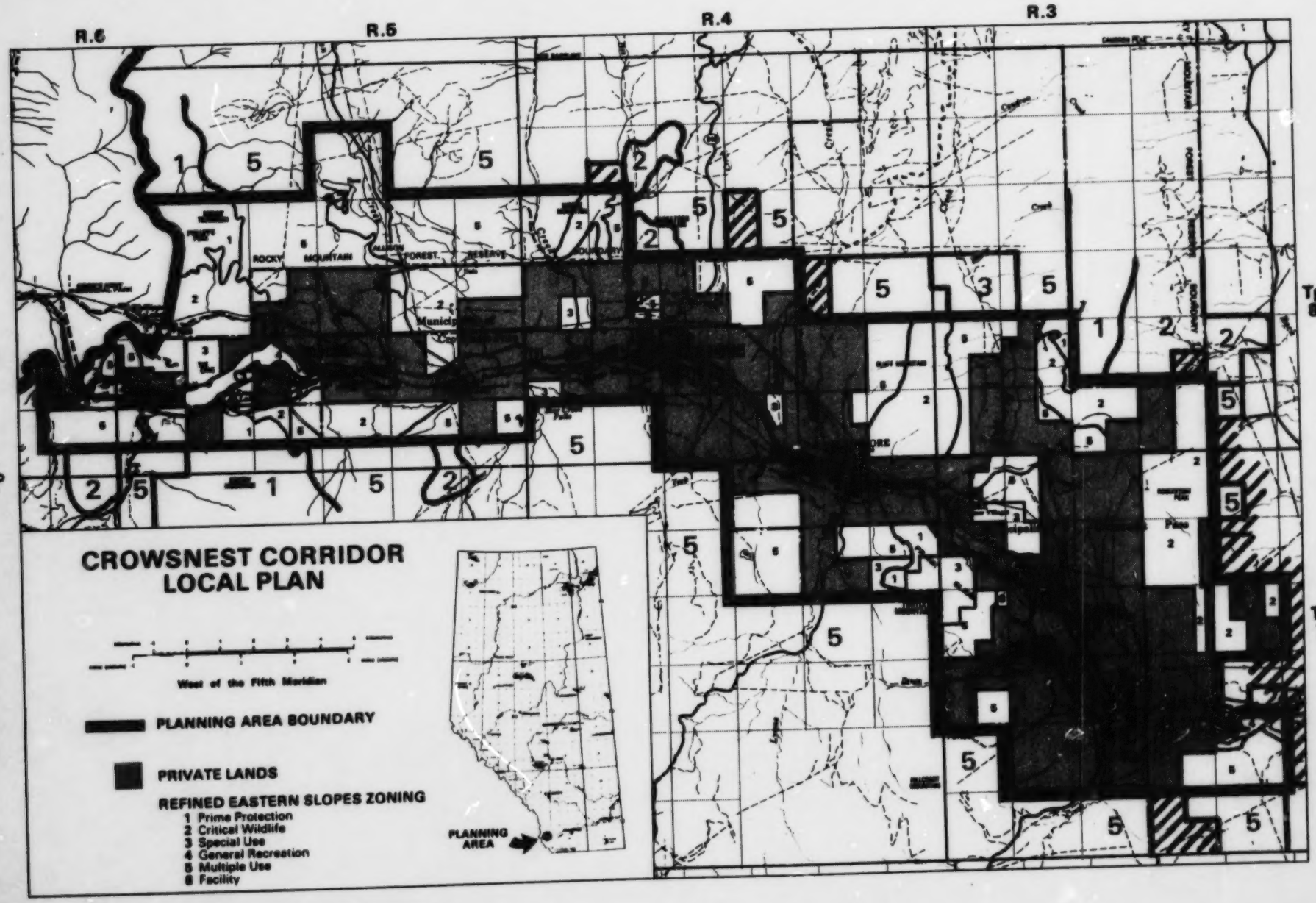

Figure 2. REFINED EASTERN SLOPES ZONING

goods and people, and to support the social and economic development needs of the public.

2. To meet the access requirements of users, wherever possible, while maintaining the integrity of provincial roadways through the planning area.

3. To ensure access opportunities for the development of tourism-related attractions, infrastructure and services in order to develop the municipality's tourism industry.

4. To identify and provide opportunities for motorized and non-motorized recreation where these uses are compatible with other land uses, land dispositions and environmental constraints.

Guidelines

1. An access management plan will be initiated in conjunction with the one proposed for the Livingstone-Porcupine Hills planning area. The plan will focus on motorized recreational access on public lands and will be subject to review by land and resource management agencies, local planning authorities, public interest groups and the general public.

2. Any new developments with potential impacts on access or user safety within 300 m of Highway 3, 3X and 40 will require approval from Alberta Transportation and Utilities.

3. Not-for-profit or charitable groups that lease public lands will be required to develop access to meet the municipality's standards as a condition of the lease and before any development is permitted.

2.2 Environmentally Significant Areas

Discussion

Protection of ecological resources is important to ensure the continuation of important ecological functions and the continuing existence of species and habitats, thus contributing to the quality of life for Albertans.

A regional level reconnaissance of environmentally significant areas (ESA) has been completed for the planning area. This study identified regionally, provincially and nationally significant sites based on natural heritage resource values. The study did not consider locally significant sites or natural landscapes that had extensive recreation or outdoor environmental education values. The existing natural area reservations within the planning area covers these types of sites.

The ESA study identified relatively large blocks of land, not all of which may be practical (because of ownership, dispositions or commitment to other land uses) or suitable for protected area reservations. Further work will be required to refine the boundaries of these areas to determine where reservations/ designations should be pursued.

Objectives

1. To protect and manage significant ecological resources.

2. To provide opportunities to the public for low-impact recreation, education and natural heritage appreciation.

Guidelines

1. Existing Natural Area reservations will be maintained and Alberta Forestry, Lands and Wildlife will pursue protected area designations on suitable sites (i.e., sites on which conflicts have been resolved and that have public support).

2. The Crowsnest ESA study will provide the basis for assessing additional ecologically important resources. Protection and designation may be pursued on suitable sites.

3. Protected areas will be managed to ensure long-term protection and continued enjoyment by the public. This will entail the development of site management plans for designated areas.

2.3 Fish and Wildlife Resources

Discussion

The Crowsnest Corridor boasts some of the finest trout fishing in North America. The Crowsnest River is a Class 1 trout stream--such streams are rare in Alberta--and provides outstanding trout fishing. Common sport fish are rainbow trout, cutthroat trout and mountain whitefish. The Crowsnest River is a very productive stream, having been shown to contain over 3000 sport fish per kilometre in the sections sampled. This productivity is due partly to sewage effluent, but further enrichment could be detrimental to the fishery. Because of the importance of the Crowsnest River fishery, efforts to maintain water quality and habitat on a watershed-wide basis are critically important.

Island, Crowsnest, Emerald, Phillips and Chinook lakes have been stocked with rainbow, cutthroat, brook and lake trout and provide excellent lake fishing opportunities.

A number of stream habitat improvement projects have been undertaken in the Crowsnest Corridor. Projects have been constructed by organizations such as Trout Unlimited through the Buck for Wildlife program; others have been constructed as mitigation for different instream activities; while a few have been built in the public interest by companies such as Atlas Lumber. Most recently, the Oldman Dam fisheries mitigation pilot project was begun in the Crowsnest River at Frank.

The Allison Creek Brood Trout Station is operated by the Fish and Wildlife Division as part of a project to make Alberta self-sufficient in trout eggs for fish culture purposes.

From the diminutive calliope hummingbird to the majestic grizzly bear, from long-toed salamanders to Rocky Mountain bighorn sheep, the Crowsnest Corridor is blessed with an abundant diversity of wildlife. Game species present include bighorn sheep, black bear, blue grouse, cougar, elk, grizzly bear, moose, mountain goat, mule deer, ruffed grouse, spruce grouse, white-tailed deer and numerous waterfowl species. A diverse variety of fur-bearers and nongame species is also present.

Wildlife ranges cover the entire area. Critical bighorn sheep ranges are found in the areas of Phillips Pass-Crowsnest Ridge, Emerald Lake, Bluff (Goat) Mountain and the southern Livingstone Range. Critical elk winter range occurs in the vicinity of Sentinel and in the Star Creek basin through Bohomolec's Ranch to Iron Ridge and Saskatoon Mountain. Because much of this critical range is on private land, efforts to manage critical ranges on public land take on ever greater importance. Although distribution of big game species is known in a general way, specific data on numbers, distribution and habitat use are very limited for most wildlife species.

Vehicle-ungulate collisions may occur anywhere along Highway 3, but the problem is particularly acute for bighorn sheep at the east end of Blairmore where the highway skirts the lower slopes of Bluff Mountain, and in the Crowsnest Lake-Emerald Lake area. The Fish and Wildlife Division and Alberta Transportation and Utilities are currently addressing this situation.

Two registered trapping areas are partially within the planning area, while some resident trapping occurs outside the forest reserve.

Objectives

1. To maintain or increase opportunities for public use and enjoyment of the fish and wildlife resources of the Crowsnest Corridor.

2. To maintain or increase fish and wildlife populations.

3. To maintain or enhance the water quality, habitat and scenic values that make the Crowsnest River one of the finest trout fishing streams in North America.

4. To ensure no net loss of habitat to support fish and wildlife populations and to improve fish and wildlife habitats, where appropriate.

5. To provide a habitat base capable of supporting winter ungulate populations of 80 moose, 150 elk, 300 mule deer, 25 white-tailed deer and 75 bighorn sheep.

6. To refine the wildlife and fisheries resource and habitat inventory in the planning area.

Guidelines

1. Development activities in the planning area will be reviewed through existing referral systems, and input based on fisheries habitat protection guidelines will be provided. Where necessary, mitigative techniques will be recommended to compensate for habitat loss, minimize siltation and provide initiatives for stream habitat enhancement. Any proposed new development activities above the Allison Creek Brood Station will be reviewed according to fisheries habitat protection guidelines for brood stations to limit the impact of land uses on water quality and quantity.

2. The Fish and Wildlife Division will continue to conduct regular surveys of lakes and streams to assess management requirements, angler use, habitat development potential and habitat protection needs.

3. The Fish and Wildlife Division, in conjunction with Alberta Transportation and Utilities and the Municipality of Crowsnest Pass, will assess opportunities and requirements for fisheries access development (off-road parking).

4. Development activities in the planning area will be reviewed and input provided through existing referral systems. Where necessary, mitigative techniques will be recommended to compensate for habitat losses, disruption of wildlife populations and lost recreational/ commercial opportunities, or to provide initiatives for habitat enhancement to benefit wildlife populations such that there will be no net loss of habitat.

5. The Fish and Wildlife Division will pursue acquisition of privately owned lands on a limited basis to meet critical habitat needs.

6. The Fish and Wildlife Division will continue to refine the wildlife and fisheries resource and habitat inventory in the Crowsnest Corridor.

2.4 Grazing Resources

Discussion

Grazing of domestic livestock on public land in the Green Area is administered by the Alberta Forest Service. Portions of four grazing allotments occur within the planning area: Allison-McGillivray, Blairmore-Gold, Star Creek and Lyons Creek. Stocking rates have been set and a management plan is in effect for each allotment. Grazing of Green Area lands within the planning area will be in accordance with these established grazing plans.

Within these allotments, there is very little opportunity for range improvement. If range improvements are undertaken, they will be limited to reduction of brush encroachment.

Domestic livestock grazing in the White Area is administered by Public Lands Division. Currently, there are 15 grazing leases and three grazing permits providing 1453 Animal Unit Months of grazing within the planning area.

Grazing in both the White Area and the Green Area is affected by a commitment to maintain stocking rates set in 1977.

Some additional short-term grazing may become available as a result of timber harvesting. As trees on reforested cutovers grow and suppress forage production, this source of grazing will be reduced.

Objectives

1. To permit grazing of suitable public land.

2. To manage the range resource for the benefit of both domestic livestock and wildlife.

3. To maintain the 1977 domestic stocking levels.

Guidelines

1. Range improvements will be directed towards reducing brush encroachment and will include provisions for wildlife habitat. Other types of improvement will be undertaken to enhance livestock distribution.

2. Grazing on cutover areas identified for sustained-yield timber production will be a temporary use and not be included in calculations of long-term grazing capacities.

2.5 Historical Resources

Discussion

The Crowsnest Corridor is one of the richest areas, prehistorically, in the province. Many highly significant sites currently occur and discovery of others is predicted. It is highly probable that very ancient sites relating to the first human occupation of Alberta some 12 000 years ago may yet be found.

The coal-mining industry prospered in the Crowsnest Corridor until the early 1920s, at which time the industry entered a period of rising and falling fortunes. After World War II, the decline became more pronounced.

The architectural heritage of the boom and bust years is truly impressive and the Crowsnest Corridor is littered with industrial, commercial and domestic buildings of the period. These structures exist today in varying states of preservation, from ruins to abandoned buildings to active stores and homes of current residents.

The Historic Sites and Archives Service operates two interpretive sites in the Crowsnest Corridor: the Frank Slide Interpretive Centre and the Leitch Collieries Provincial Historic Site. The Frank Slide Centre has proven to be very popular, having received well over 100 000 visitors in 1988. The Historic Sites and Archives Service has also been active in establishing the Crowsnest Pass Main Street Program and involved in the Ecomuseum Trust. Development of additional sites is at the planning stage.

A complete summary of historical resources is contained in the Appendix.

Objectives

1. To protect and/or preserve historical resources (archaeological, palaeontological, historic and natural), as defined in the Historical Resources Act, from potential or actual impact related to future resource developments.
2. To manage historical resource sites for scientific, educational and interpretive purposes.

Guidelines

1. Resource uses in the planning area involving land surface disturbance may require an Historical Resources Impact Assessment before development occurs, as outlined in Section 33(2) of the Historical Resources Act.
2. The Resource Management and Planning Section, Historic Sites and Archives Service will participate in the land use referral process to review proposed development projects within those areas of the Crowsnest Corridor considered to have high historical resources potential.
3. To facilitate this referral process, Alberta Culture and Multiculturalism will develop an historical resources sensitivity map for the planning area. This will outline areas of historical resources potential for which Alberta Culture and Multiculturalism requests referral of proposed development projects. The map is to be distributed to other government agencies involved in land management for their reference during the course of the regular referral process.
4. Alberta Culture and Multiculturalism will identify specific types of development projects to be referred at the implementation stage of this plan.
5. Areas of high historical potential will be protected by Protective Notation designation on public land.
6. Historical resources sites considered to be of provincial significance will be protected and preserved for future generations.
7. The Alberta Forest Service will refer sanitation projects of timber stands 200 years and older within the Alpine-Subalpine ecotone (upper and lower treeline) to the Resource Management and Planning Section, Historic Sites and Archives Service to ensure that scientific investigations (e.g., core sampling) can be conducted before removal of insect-infested or diseased

timber. (No such stands have yet been identified.)

2.6 Mineral Resources

Discussion

Coal

Mining of the rich coal deposits in the Crowsnest Corridor, which started in 1900 at Frank, was the prime reason for initial settlement. Extensive coal mining continued until the 1950s with the last mine in the planning area closing in 1965. Coal mining, however, continued in the surrounding area and was processed at Coleman until the early 1980s. Some 62 million tonnes of coal was extracted from 14 mines in the Bellevue, Blairmore and Coleman fields. Substantial reserves of recoverable coal remain, and there has been renewed interest in coal mining in the corridor as international coal markets and prices recover from the recession of the early 1980s. The coal rights are mostly privately owned; currently only 10 Crown coal leases are held.

Quarry Stone

The Crowsnest Corridor contains one of only six significant quarriable limestone areas in Alberta. Locations within and immediately adjacent to the corridor include Crowsnest Pass, Phillips Pass, Deadman Pass, Blairmore and Ptolemy Creek. Limestone is sold as lime, crushed limestone and rip-rap. A number of limestone quarries have been worked but production now is mainly from the Summit Lime Works Ltd. quarry just west of Crowsnest Lake, where lime and crushed limestone are produced. Some potential exists for quarrying volcanic tuff. The corridor contains all or portions of 11 Crown quarriable mineral leases for limestone, all located from Crowsnest Lake west to the British Columbia border. As well, freehold quarriable mineral rights are held for five separate properties.

Other Minerals

There has been little exploration for petroleum and natural gas; however, there is considered to be some potential for these resources. Two dry, abandoned wells have been drilled and four Crown petroleum and natural gas dispositions have been issued recently. A major pipeline passes through the corridor to export natural gas from Alberta. As well, gas pipelines carry hydrogen sulphide-bearing natural gas from the Coleman and Savanna Creek fields to the Saratoga gas processing plant located within the corridor.

Recent interest and speculation in gold, potentially associated with the Crowsnest Volcanics both within and adjacent the Crowsnest Corridor, has resulted in the issuance of extensive Crown metallic mineral exploration permits in 1989. Long-known showings of iron and other metallic minerals indicate some potential for these minerals but no commercial deposits have as yet been discovered.

Objectives

1. To ensure access to the mineral resources (such as the major coal deposits) that occur in, and adjacent to, the Crowsnest Corridor so that they may be explored and, where appropriate, developed.

2. To maintain the uninterrupted operation of existing mineral processing plants, to ensure opportunities for new processing plants and to provide access for mineral products to transportation facilities.

3. To maintain opportunity for the recovery of limestone in order to support the continued operation of the lime plant.

Guidelines

1. Existing quarry operations will be permitted to continue their operations on surface leases held within Critical Wildlife (Zone 2) areas, subject to existing conditions. Expansion onto new surface leases within Zone 2 will be permitted subject to normal government referral procedures. (It is anticipated that the operator and the Fish and Wildlife Division will cooperate closely in attempts to ensure that quarrying is compatible with wildlife objectives.)

2. Exploration and new development of minerals will be permitted under the existing approval process; however, special operating conditions may be necessary to mitigate impacts on fish and wildlife resources.

Mitigation will strive for the goal of no net loss of habitat.

3. Impacts of mineral activities on settlements, as well as recreation, tourism and other human activities, should be carefully mitigated.

4. Coal exploration will be permitted in Critical Wildlife (Zone 2). Any subsequent development of the coal resource will be determined through a preliminary disclosure and regulatory approvals. Potential wildlife management conflicts arising from coal exploration or development must be mitigated as a condition of approval.

5. All disturbed land will be reclaimed to a productive land use, which may be different from the initial land use.

2.7 Recreation and Tourism

Discussion

The Crowsnest Corridor is an area with high tourism development potential. This is due to the significant historical and cultural resources, mountainous topography, wildlife and natural environmental circumstances. Both the significance of the area and topography permit development of numerous tourism/recreation activities that cannot take place in Alberta's mountain national parks.

Alberta Tourism views southwest Alberta as an area that is developing the critical mass of tourism attractions, infrastructure and services necessary to become a major international tourism destination area. The development of the Crowsnest Corridor is seen as an important and integral tourism component of the region. In support of tourism development, several important, community-based planning and assessment initiatives have been undertaken. These include the Crowsnest Pass Community Tourism Action Plan; Ecomuseum Trust's interpretive museum; Proposed Development Plan for the Crowsnest Pass Historic and Coal Mining Corridor; and the Crowsnest Pass Main Street Program's restorations at Coleman.

Recreational use within the planning area is becoming significant. For example, the Allison-Chinook area is used extensively for a wide variety of recreational pursuits. Increased pressure can be expected as population increases and recreational activities are promoted. In 1986, under authority of the Forests Act, Alberta Regulation 308/86 was approved setting up the Allison/Chinook Forest Land Use Zone covering approximately 430 ha (1063 ac.). This Forest Land Use Zone was established to help reduce potential conflicts between cross-country skiers and other user groups by controlling user activities between December 1 and March 31.

Objectives

1. To ensure continued opportunities for extensive and intensive recreation activities.

2. To ensure opportunities for the development of tourism-related attractions, infrastructure and services to support and increase opportunities for the municipality's tourism industry.

3. To identify historical/cultural resources, located on public land, for possible protection so that they can be enhanced and used for cultural tourism purposes.

4. To ensure development of resources that is compatible with recreation, tourism and other land use activities, while recognizing environmental conditions.

5. To support the development of commercial tourism and recreation facilities and activities, particularly by the private sector.

6. To maintain and upgrade existing recreation facilities, as required.

7. To provide opportunities for motorized recreational access use where this is compatible with other land uses, recreational uses and environmental constraints.

8. To recognize the important role that the formally endorsed Crowsnest Pass Community Tourism Action Plan and the Proposed Development Plan for the Crowsnest Pass Historic and Coal Mining Corridor will play in directing tourism development on public land in the Crowsnest Corridor.

Guidelines

1. A coordinated and integrated approach will be used in the continued support and development of recreation opportunities that rely on public lands and resources in the Crowsnest Corridor. The municipal authority will be considered to be an important partner with provincial public agencies in planning for recreation and tourism.

2. Alberta Culture and Multiculturalism will provide advice, assistance and support in planning for the management of important historical/cultural resources and environmentally significant areas, and determining the role they will play in providing economic benefits through the tourism sector in the Crowsnest Corridor.

3. Recreation and tourism opportunities and implications, including motorized recreational access, will be carefully considered and accounted for during the development of all access management plans done in conjunction with the Livingstone-Porcupine Hills access management plan.

4. Data and planning support will be provided, as required, to assist in the documentation of fisheries and wildlife resources as tourism assets in the Crowsnest Corridor. Careful consideration will be given to the implications for fisheries and wildlife management that result from tourism activities based on those resources.

5. Tourism development on public land will recognize the importance of the economic and commercial development objectives that have been prepared by local communities and their representatives. Regional tourism planning initiatives will be responsive to the approved Crowsnest Pass Community Tourism Action Plan, the Ecomuseum Trust's interpretive museum concept, and the Proposed Development Plan for the Crowsnest Pass Historic and Coal Mining Corridor.

6. At the request of individual tourism operators or proponents, business advice will be provided to assist in further developing existing tourism assets or evaluating potential tourism opportunities in the Crowsnest Corridor.

7. Use of, and access to, historical mine site developments for recreation/tourism opportunities will need to be planned and designed in consideration of human health, convenience and safety. Proposals for such developments should be referred to the Coal Department of the Energy Resources Conservation Board.

2.8 Settlement

Discussion

On account of the municipality's size, geography and combinations of land uses and land ownership, effective coordination of land uses on both public and private lands is vital. Actions, proposals or developments on public land will have an impact on lands under the municipal jurisdiction and vice versa. Strong communication links, between all relevant government agencies and departments and the municipality, on matters affecting land use are important to facilitate further development and economic diversification within the municipality of Crowsnest Pass.

One consideration is the popularity of low-density, country residential subdivisions. These subdivisions not only create high property values within a forest environment, but also increase the risk and severity of wildland fires. This includes wildfires that originate in a settled area and threaten resources within the adjacent forest reserve or those originating within the forest reserve that may endanger life and property in settled areas. Wildland fire protection service capabilities and available suppression resources must also be considered.

The existence of sour gas pipelines, electric transmission lines and numerous abandoned coal mines create some constraints to surface developments and improvements on both public and private lands, particularly with regard to ensuring public safety. Development in the vicinity of major pipelines and power transmission lines can create substantial expenses for the utility company concerned. For example, urban or residential development beyond a certain density and in close proximity to a pipeline means an entire section of the

pipeline must be excavated and replaced with heavier walled pipe.

Land use encroachments in close proximity to sour gas facilities can be not only costly to the operators, but also, in the event of a blowout or other failure of the facility, may have the disastrous potential for loss of life.

Finally, the potential for another coal mine or other major resource development cannot be ignored. While such activities boost the local economy, they also tend to conflict with the natural and urban environments. In order to realize the benefits of such a development without unacceptably high costs, close coordination between local and provincial agencies and the judicious enforcement of applicable regulations is desirable.

Objectives

1. To reduce the risk of wildland fires in non-urban and semi-urban parts of the Crowsnest Corridor.

2. To achieve frequent and effective consultation between local and provincial decision-makers regarding land use concerns and decisions relating to the Crowsnest Corridor.

3. To help strengthen and diversify the local economy.

4. To ensure safety of the public with respect to surface developments and land uses in the vicinity of natural gas facilities and abandoned underground coal mines.

Guidelines

1. The municipality will consult the Forest Protection Branch, Alberta Forest Service, regarding ways to reduce the risk and severity of wildfires and the provision of protection services concerning country residential subdivisions. Some measures might include the following: reduction of combustible fuels (fuel loading) on or near sites; location of subdivision sites; building orientation/location and fire resistant building materials; adequate access to and from sites; and sufficient water sources for fire suppression purposes.

2. The Alberta Forest Service will assess country residential development from time to time and, in consultation with the municipality, determine the need to review and amend fire control agreements.

3. Government departments will provide comments to the municipality regarding private land in rural areas referred to them by the municipality.

4. Government agencies and departments will refer development applications or proposals to the municipality for comment, wherever there is potential for impacts on private lands or activities in the municipality.

5. The Department of Forestry, Lands and Wildlife will identify appropriate site(s) on public land where not-for-profit associations or community groups can locate developments without compromising adjacent land uses.

6. Plans prepared by government departments affecting the municipality will be coordinated with the municipality to effectively integrate land uses and patterns of development including settlements, major rights-of-way, tourism facilities and resource development.

7. The municipality is encouraged to protect industrial uses from the intrusion of incompatible uses, whether on public or private lands.

8. Government departments will work towards achieving a balance between environmental protection and support of a resource-based economy.

9. Government departments will work actively to ensure the health, safety and quality of life of residents are not compromised by the impact of resource development on public land.

10. Government departments will support, within their mandates, local attempts to substantially increase tourist attractions and facilities in the Municipality of Crowsnest Pass without compromising the potential for a new resource industry or other investments.

11. The proponents of any surface development or land use on a site overlying, or in the vicinity of an abandoned underground coal mine will be required to investigate, assess and mitigate any related constraints to development as a condition of obtaining appropriate approvals.

12. Any surface development or land use change on public lands lying within defined sour gas pipeline corridors will be referred to the Environment Protection Department of the Energy Resources Conservation Board and to the gas utility owner or operator, before a decision on subdivision or development is made.

13. The municipality is, in regard to private lands under its control, encouraged to recognize the surface development constraints related to existing sour gas pipelines and abandoned underground coal mines. It is also encouraged to adopt the requirements of this plan (i.e., guidelines 11 and 12 above) with respect to these constraints and to amend its bylaws accordingly.

2.9 Timber Resources

Discussion

The timber resources within the planning area are mainly in the immature and mature age classes with areas of regenerating stands from past harvesting operations. Of the commercial species, lodgepole pine dominates with white spruce and interior Douglas-fir present to a lesser degree.

The Green Area in the northwest corner of the resource planning area is part of the C5 Forest Management Unit. It contains part of a quota sphere of interest held by Chinook Coals Ltd. and part of the Allison Creek miscellaneous timber use area.

Approximately 61 quarter sections in the White Area may have potential for sustained-yield timber management, although timber within the White Area has not yet been formally inventoried.

The emphasis for forest management within the planning area will include the maintenance of a land base capable of a sustained yield satisfying both commercial and local demands for forest products. Treatment will continue, as required, in an effort to control occurrence of mountain pine beetle populations, although occurrence of mountain pine beetle within the planning area has been light.

Removal of mature and overmature timber stands on a sustained-yield basis will contribute to the local economy and help reduce the risk and severity of wildfire on lands adjacent to the developed areas within the municipality.

Objectives

1. To maintain a sustained-yield land base capable of satisfying both commercial and local demands for forest products as part of the C5 Forest Management Unit identified in the Livingstone-Porcupine Hills Sub-Regional Integrated Resource Plan.

2. To manage White Area quarter sections of public land that have value for timber production as part of the sustained-yield land base.

Guidelines

1. Within the White Area,

   (a) An inventory of timber volumes will be done on public lands.
   (b) Lands suitable for sustained-yield management will be identified.
   (c) A management plan will be drawn up in consultation with the Public Lands Division, the Fish and Wildlife Division and each lessee.

2. Within the Green Area, the C5 Forest Management Unit Plan will provide operational planning direction.

3. Timber harvesting will be planned according to the Timber Harvest Cut Block Design ENR report T/16, Forest Landscape Management Guidelines for Alberta (FLW publication T/125, 1986) and annual operating plan ground rules in effect. Wildlife and environmental values will be recognized through special conditions, when necessary, through consultation with Public Lands Division and Fish and Wildlife Division.

4. Harvested stands on lands identified for sustained-yield management will be reforested according to established reforestation policy.

5. Salvage or sanitation treatments will be undertaken after fire or in the event of infestation by insects and disease.

6. Where practical, prescribed burns may be considered for the overall management of forest resources to reduce fuel loading and assist with management of forest insects, disease, range improvement and wildlife habitat enhancement.

7. The Alberta Forest Service will provide wildfire protection services within the undeveloped areas of the municipality as identified in the current agreement and existing legislation. Cooperation between the Alberta Forest Service and the municipal fire department will be maintained.

8. The Alberta Forest Service will provide extension services to landowners wishing to manage their woodlots.

2.10 Watershed

Discussion

The Crowsnest watershed supplies approximately 20 percent of the Oldman River's annual flow. Water consumption within the planning area is primarily for domestic purposes. Most of this water is returned to the system after treatment. There is no appreciable loss of water from consumptive uses, although water quality may be reduced.

Instream water uses are largely recreation, tourism and fisheries related. The Allison Creek Trout Brood Station relies on having excellent water quality from Allison Creek for trout rearing.

Industrial uses of water lacked environmental standards in the past. This resulted in reduced water quality in the Crowsnest River. Improper siting of new developments in the vicinity of watercourses or water bodies can lead to their pollution if proper design and waste water discharges are not controlled. Provincial regulations require private sewage disposal systems, depending on their type, to be set varying distances back from a water source. Such systems are prohibited in some circumstances such as sites with a high water table.

Alberta Public Works, Supply and Services, in cooperation with the Fish and Wildlife Division, recently initiated a fisheries mitigation project to reduce the potential negative effects of the Oldman River Dam on the Crowsnest River fishery.

Objectives

1. To maintain or enhance the water quality, where possible.

2. To maintain or improve habitat for the existing fishery.

Guidelines

1. Alberta Transportation and Utilities, in cooperation with the Municipality of Crowsnest Pass, will continue to provide financial assistance towards the treatment of municipal waste water to meet provincial standards.

2. All industries discharging waste water will be required by Alberta Environment to meet provincial water quality standards that will not significantly, adversely affect the existing fishery.

3. Government departments will cooperate to improve the trout fishery for both local recreation and tourism benefits.

4. Alberta Forestry, Lands and Wildlife will consult with Alberta Environment on land and resource uses that may affect water quality or quantity within the Crowsnest Corridor.

3.0 IMPLICATIONS

This section identifies key aspects of the plan guidelines that may have an impact on other important resource sectors. Impacts can be either positive or negative, but in this section the emphasis is on negative impacts. In addition, this section also identifies important management guidelines that should be adhered to closely, so that the intended or desired benefits are realized.

3.1 Access

1. Since Alberta Transportation and Utilities is mainly concerned with points of access to Highway 3, some limitations on future developments may be required to ensure the integrity of the provincial roadway through the planning area.

2. With respect to guideline 3, under Subsection 2.1, Access, the requirement that all not-for-profit and charitable groups develop access to municipal standards usually poses insurmountable difficulties for them. Where this is a problem, they should negotiate with agencies or government departments so that access is developed on their behalf.

3.2 Fish and Wildlife Resources

1. While the guidelines in the plan provide adequate direction for maintenance of fish and wildlife resources, it is vital to achieving the objectives that the principle of "no net loss of habitat" be strictly observed as a condition for development.

2. Grazing improvements implemented to reduce brush encroachment may increase habitat capability for elk.

3.3 Grazing Resources

1. Within the White Area, sustained-yield timber production on public land will limit the potential for increased long-term forage production on harvested sites. In the past, removal of the forest cover on grazing dispositions (e.g., liquidation cuts) was used to convert low forage production sites into higher forage production sites. However, as the reforested coniferous overstory increases, forage production levels on those sites will be reduced over time.

2. Surface extraction of mineral resources may result in the loss of forage for livestock. Stocking rates would be adjusted downward to reflect this loss. Upon completion of the mineral extraction activity, reclamation of the disturbed areas should result in the stocking rate being adjusted upward in relation to sustained forage production.

3.4 Mineral Resources

1. The expansion of Prime Protection (Zone 1) on the north slope of Sentry Mountain, not presently mined, means that a larger portion (now roughly half) of quarriable mineral lease 1988020001 is unavailable for limestone extraction. The adjacent quarriable mineral resource is also affected by this Prime Protection (Zone 1) expansion.

2. The new Prime Protection (Zone 1) at Green Creek at the south end of the Livingstone Range precludes development of any mineral resources on approximately 0.65 km^2 (0.25 sq. mi) of freehold minerals.

3.5 Settlement

1. Provincial land and resource management agencies will require building setbacks from the following developments:

   abandoned underground coal workings; sour gas pipelines or sour gas facilities; major electrical transmission lines; major pipelines; environmentally sensitive areas; major cultural, historical and archaeological areas; critical wildlife areas; primary highways and resource roads; major existing industrial operations; and watercourses or water bodies.

2. Future urban development may require that the ownership of public land in the White Area be transferred to the municipality.

3. The presence or increase of country residential subdivisions within the White Area must consider impacts with respect to risks associated with wildland fires, wildfire protection service capabilities and the availability of fire suppression resources. This may involve the re-allocation of fire suppression resources as required from other areas, or the assignment of additional resources to maintain public safety and to protect property and natural resource values.

3.6 Timber Resources

1. Mineral extraction on lands identified for sustained-yield timber production is expected to result in some reduction in timber production in this planning area. This reduction will persist until the extraction activity is completed and the disturbed area reclaimed and reforested.

2. Timbered areas excluded from timber harvesting will experience an increase in the risk of forest fires, as a result of increased organic material providing a fire source over a period of years. This increase will result in an increased risk and severity of wildfire.

General administrative procedures and mechanisms required for plan implementation, monitoring and amendment are outlined in this section.

4.1 General Administration

The Crowsnest Corridor Local Integrated Resource Plan will be implemented within the terms of appropriate legislation, regular programs and activities of the government, operational plans, specific development projects and referral processes. The revised zoning provides a means of processing applications for new public land dispositions within the planning area. Existing systems for referral and interdepartmental review will apply to the plan. Resources will continue to be administered by the departments responsible, in line with approved zoning, resource management guidelines and any operational plans.

Government management agencies participating in the Crowsnest Corridor Local Integrated Resource Plan will have several responsibilities to ensure effective delivery of this plan. It will be their responsibility to deal with conflicts or concerns with respect to implementation or interpretation of any of the plan's provisions. These responsibilities are outlined by subject area below.

Referral Systems: Participating government management agencies will ensure that existing referral systems of the Alberta government are adequate to encompass all affected or concerned agencies.

Plan Monitoring: The Crowsnest Corridor Local Integrated Resource Plan will be reviewed annually by the Southern Regional Resource Management Committee to accomplish the following:

(a) assess the relevancy of the stated resource objectives in light of changing conditions;
(b) assess the resource management guidelines and referral procedures;
(c) assess agency operational plans to ensure their consistency with the intents, objectives and guidelines contained in the plan; and
(d) recommend amendments to the Crowsnest Corridor Local Integrated Resource Plan and future actions required to maintain or promote government resource management activities in the planning area.

An annual report will be prepared by the Southern Regional Resource Management Committee. The report will highlight the previous year's activities in the planning area. It will also indicate what might be expected to be accomplished in the planning area during the next year. The report may be deferred if there is a lack of activity or progress on government resource management objectives within the planning area.

On a periodic basis (approximately every five years), an overall assessment of the plan will be conducted by the Southern Regional Resource Management Committee. If the plan is found to be no longer current, a major plan review will occur.

For example, a major plan review would occur when the plan is considered out-of-date because of significant resource changes or new priorities. This review would include the following:

(a) a comprehensive review of all aspects of the plan including, but not limited to, resource management objectives and guidelines, and land-use zoning;
(b) a public review similar to that involved in the development of new integrated resource plans; and
(c) a statement recommending amendments to the plan and future actions required to maintain or promote government resource management activities in the planning area.

4.2 Amendment Procedures

Changes to the planning area boundary, land use zoning, the activity/zone matrix, or resource management objectives or guidelines that would result in significant changes to the allowed resource uses or priorities will require major amendments to the Crowsnest Corridor

plan. An amendment to the plan may be required as a result of an annual review, government requests or a request from an individual, group or organization outside the government.

Proposed amendments to the Crowsnest Corridor Local Integrated Resource Plan from outside the government should be made by formal application to the Assistant Deputy Minister of the Public Lands Division, Alberta Forestry, Lands and Wildlife. Guidelines for preparing requests for amendments to integrated resource plans are available upon request from the Resource Planning Branch of Alberta Forestry, Lands and Wildlife in Edmonton. Opportunities for public review of significant amendments to the Crowsnest Corridor plan will be provided before changes are approved by the government.

The decision to consider requests to amend an integrated resource plan rests with the Minister of Forestry, Lands and Wildlife or his designate. Amendments that entail a major policy decision or a change to the basic intent of the plan may be forwarded to the Minister of Forestry, Lands and Wildlife for review and approval.

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GLOSSARY

Community Group	A not-for-profit organization incorporated under the Societies Act and registered with the Corporate Registry, Alberta Consumer and Corporate Affairs.
Environmentally Significant Area (ESA)	An area containing an ecosystem or ecosystem segment for which the natural characteristics and processes should be maintained, preserved and protected. Some areas contain geological or physical features that are important irrespective of the biological features. They are important, useful and often sensitive features of the landscape.
Disposition	A lease, licence, permit or letter of authority issued under provincial legislation for activities either surface or subsurface.
Forage	All browse and nonwoody plants that are available to livestock or game animals and used for grazing or harvested for feeding.
Goal	An end to be striven for but which is not necessarily achievable.
Integrated Resource Planning	A cooperative and comprehensive approach to decision making on resource uses.
Objective	A clear and specific statement of planned results to be achieved.
Public Land	Land of the Crown in right of Alberta.
Reservations and Notations	An administrative system to record in the Department's official land records, a special interest any government agency has in the management of specified parcels of public land. Land reservation formally recognize that interest without a disposition being granted. Reservations are sometimes called notations. They identify and record areas that the department agrees are required for conservation, development or management. Reservations also provide for specified management priority over a parcel of land by a designated agency. Reservations may protect land for soil and water conservation, prevent certain uses, or reserve land for certain purposes, such as wildlife habitat, timber or recreation.
Residential Subdivisions	All activities and infrastructure associated with permanent housing subdivisions for residents.
Resource	Any part of the natural environment perceived by society as having value.
Resource Management	The planned and wise use of a particular natural resource to achieve a specific end.
Transportation and Utility Corridors	Linear land areas established to concentrate utilities and roads and to provide access for resource use and development.
Wildlife	Big game, gamebirds, birds of prey, fur-bearing animals, fur-bearing carnivores and any other species of vertebrates designated as wildlife by legislation.

APPENDIX

Historical Resources

(a) Archaeological Resources

The Crowsnest Corridor and its surrounding vicinity is perhaps the best studied and one of the most significant historical areas in the province. It is not known when the earliest occupation of the area took place, possibly 12 000 years ago or more, but an unbroken record of prehistoric use of the rich resources of the area is revealed in sites throughout the valley from at least 10 000 years ago until the arrival of Europeans in the mid-1800s. Despite the substantial amounts of land surface disturbance that have occurred as a result of mining, settlement and other forms of recent development, numerous significant prehistoric archaeological sites exist in the planning area and undoubtedly many more remain to be discovered. One hundred and ninety-six sites have been recorded within the boundaries of the planning area to date.

Prehistoric sites occur in diverse topographic settings in this area, reflecting the highly varied resources present and the different seasonal settlement patterns used to exploit them. Studies undertaken in the late 1970s summarize current thinking by suggesting there were sufficient resources to support prehistoric groups on a year-round basis within the confines of "the Pass." Large summer base camps are present around the shores of Crowsnest Lake and other smaller lakes at the head of the Crowsnest Corridor. From these locations, prehistoric hunters exploited the dispersed game herds, high elevation plants, lake and stream fish, waterfowl and various furbearers. Sites relating to these various activities are distributed from the valley bottom to high elevation meadows.

In the central portions of the pass, sites appear to be closely related to exploitation of bison herds as the bison moved up the valley in spring and down the valley in autumn. Campsites, kill sites and processing stations appear to be associated with high terraces back from the river edge. The Bill White Site, a significant provincial historic resource is an example of this. Similarly, some of the smaller tributary systems such as Gold, Blairmore and McGillivray creeks were used during the summer. As well, the warm season saw stone suitable for tool manufacture, being intensely collected from the Livingstone Quarries atop the crest of the range overlooking Bellevue. Other quarry locations are known in various places in the valley.

In winter, it is believed that prehistoric natives moved to the foothills zone near Burmis where the plains bison congregated and grazed on snow-free grassy slopes. Only a limited number of these sites are encompassed within the planning area boundaries.

(b) Historic Resources

In 1897, the Canadian Pacific Railway built a branch line through the Crowsnest Corridor in an effort to reach the massive ore bodies of southeastern British Columbia. Within three years, the rich coal deposits that lined the mountainous stretches of the route were attracting attention. Homesteaders, other railways and the smelter operations handling B.C.'s lead/silver and copper deposits needed coal and coke. As a result, prospectors began to scour the Crowsnest Corridor area and by 1914, coal mines and company towns had sprung up along the railway corridor.

The coal mining industry continued to prosper until the early 1920s when it entered into a period of fluctuation brought on by the advent of diesel fuel, among other factors. After World War II, the decline became more pronounced and the coal industry in the pass never recovered successfully.

The architectural heritage of these boom and bust years is truly impressive, and the Crowsnest Corridor is littered with industrial, commercial and domestic buildings of the period. These structures exist in varying states of preservation, from ruins to abandoned buildings to active stores and homes of current residents. It is, in a sense, particularly fortunate that no major industry ever replaced coal on

a similar scale. Without the infusion of large amounts of new capital into the area, the Crowsnest Corridor was not subjected to development pressures that would have seen many of the fine old buildings either demolished and replaced, or renovated beyond recognition.

It is not possible to list all the historic remains of the Crowsnest Corridor held in the provincial inventory. The source material is held in the inventory office in Fort Macleod and consists of 32 volumes. This inventory is not considered all-inclusive. Basically, no development should be undertaken in the Crowsnest Corridor without prior review by Alberta Culture and Multiculturalism. The resources are extremely dense, not only in the towns but also in "undeveloped" areas as well.

(c) Palaeontological Resources

The Crowsnest Corridor lies entirely within the Front Ranges of the Rocky Mountains. Because of the precipitous nature of much of the terrain, many rocky outcrop exposures could potentially yield palaeontological resources. At present, the area is not well known either geologically or palaeontologically, and there are only three recorded fossil sites in the area. However, the planning area is considered to have high potential for discovery of additional sites.

Given the potential of the planning area for the discovery of additional palaeontological sites, virtually any development involving land surface disturbance could encounter palaeontological resources. Although the known sites are significant, most of the contained resource will not be overly significant unless they are either vertebrates, show unusual preservation quality, or are encountered in unusual concentrations. Any such resources would be of interest from the standpoint that so little is known about the study area.